

Docket No.: P2001,0004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : ALEXANDAR RUF ET AL.  
Filed : CONCURRENTLY HERewith  
Title : METHOD FOR MAKING CONTACT WITH A DOPING REGION  
OF A SEMICONDUCTOR COMPONENT

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 C.F.R. 1.98 copies of the following patents and/or publications are submitted herewith:

U.S. Patent No. 6,121,134 (Burton et al.), dated September 19, 2000;

U.S. Patent No. 5,639,678 (Lee et al.), dated June 17, 1997;

U.S. Patent No. 4,701,349 (Koyanagi et al.), dated October 20, 1987;

Kaneko, H. et al.: "Novel Submicrometer MOS Devices by Self-Aligned Nitridation of Silicide", IEEE, Transactions on Electron Devices, Vol. ED-33, No. 11, November 1986, pp. 1702-1709;

Kamgar, A. et al.: "Self-Aligned TiN Barrier Formation by Rapid Thermal Nitridation of TiSi<sub>2</sub> in Ammonia", American Institute of Physics, J. Appl. Phys., Vol. 66, No. 6, September 15, 1989, pp. 2395-2401;

Inoue, K. et al.: "A New Cobalt Salicide Technology for 0.15-  $\mu$ m CMOS Devices", IEEE Transactions on Electron Devices, Vol. 45, No. 11, November, 11 1998, pp. 2312-2318;

Chen, S. C. et al.: "Formation of Titanium Nitride/Titanium Silicide by High Pressure Nitridation in Titanium/Silicon", Japanese Journal of Applied Physics, Vol. 30, No. 11A, November 1991, pp. 2673-2678;

Tolia, A. et al.: "Integrated IMP Ti and MOCVD TiN for 300mm W Barrier and Liner for Sub 0.18  $\mu$ m IC Processing", SPIE, Vol. 3883, September 1999, pp. 130-136;

Kanamura, R. et al.: "Influence of the Sputtering Method of TiN/Ti Films on the Resistance of High Aspect Ratio Contact Holes", VMIC Conference, June 18-20 1996, pp. 554-559;

Gambino, J. et al.: "Tungsten Contacts for a 256m DRAM Process Using a Thermally Formed TiN Diffusion Barrier", VMIC Conference, June 18-20, 1996; pp. 180i-180k;

Dixit, G. A. et al.: "Ion Metal Plasma (IMP) Deposited Titanium Liners for 0.25/0.18  $\mu$ m Multilevel Interconnections", IEEE, 1996, pp. 14.3.1-14.3.4;

Author not listed: "Physical Vapor Deposition Process BKM: Vectra IMP Ti", Applied Materials Inc., 2000, pp. 1-30;

Ermolieff, A. et al.: "Nitridation of Polycrystalline Titanium as Studied by in situ Angle-Resolved X-ray Photoelectron Spectroscopy", John Wiley & Sons, Ltd., Surface and Interface Analysis, Vol. 11, January 18, 1988, pp. 563-568;

International Search Report, dated August 5, 2002.

If no translation of pertinent portions of any foreign language patents or publications mentioned above is included with the aforementioned copies of those applications, patents and/or publications, it is because no existing translation is readily available to the applicant.

Respectfully submitted,



For Applicants

LAURENCE A. GREENBERG  
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Date: July 7, 2003

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<b>FORM PTO-1449 (SUBSTITUTE)</b>  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  <b>INFORMATION DISCLOSURE          STATEMENT BY APPLICANT          (37 CFR 1.98(b))</b>				Attorney Docket No.: P2001,0004 Appl. No.:  Applicant: ALEXANDAR RUF ET AL.  Filing Date: July 7, 2003 Group Art Unit:			
EXAMINER INITIALS		PATENT NO.	DATE	PATENTEE	CLASS	SUB CLASS	FILING DATE
	A	6,121,134	9/19/00	Burton et al.			
	B	5,639,678	6/17/97	Lee et al.			
	C	4,701,349	10/20/87	Koyanagi et al.			
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